The following Listing of Claims replaces all prior versions, and listings of claims in the application.

LISTING OF CLAIMS:

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) A method of operating a storage controller for interfacing between a plurality of host systems and a direct access storage devices system, the storage controller including a first cluster including a first processor and a first cache, and a second cluster including a second processor and a second cache, the method comprising:

directing data from the host systems through first and second data paths in the storage controller to the direct access storage system, wherein the first processor and the first cache are associated with the first data path, and the second processor and the second cache are associated with the second data path;

under a first set of defined conditions, entering into a failover mode, wherein data directed to the first data path are routed to the second data path; and

under a second set of defined conditions, deconfiguring the first cache without entering the failover mode;

wherein the first cache includes a series of memory pages, and the deconfiguring step includes the steps of:

identifying selected pages of the first cache;

marking each of said selected pages as unavailable; and

after all of said selected pages are marked as unavailable, removing the selected pages from the first cache;

wherein the memory pages are on a series of tracks in the first cache, and the first cache further includes a multitude of segment control blocks, each segment control block being associated with one of the memory pages, and a multitude of directory control bocks, each directory control block being associated with one of said tracks, and wherein:

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the selected pages are all on the same track; and

the identifying step includes the step of, for each of the selected pages, identifying in the directory control block associated with the page, the segment control block associated with the page.

4. (Cancelled)

5. (Currently Amended) A method of operating a storage controller for interfacing between a plurality of host systems and a direct access storage devices system, the storage controller including a first cluster including a first processor and a first cache, and a second cluster including a second processor and a second cache, the method comprising:

directing data from the host systems through first and second data paths in the storage controller to the direct access storage system, wherein the first processor and the first cache are associated with the first data path, and the second processor and the second cache are associated with the second data path;

under a first set of defined conditions, entering into a failover mode, wherein data directed to the first data path are routed to the second data path; and

under a second set of defined conditions, deconfiguring the first cache without entering the failover mode;

wherein the first cache includes a series of memory pages, and the deconfiguring step includes the steps of:

identifying selected pages of the first cache;

marking each of said selected pages as unavailable; and

after all of said selected pages are marked as unavailable, removing the selected pages from the first cache;

wherein the step of marking each of the pages as unavailable includes the steps of, for each of the selected pages,

determining whether the page is modified or unmodified;

if the page is unmodified, marking the page as unavailable; and

if the page is modified, processing the page according to a defined routine, and then marking the page as unavailable; and

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wherein the step of processing the page includes the steps of:

determining whether the page is pinned or bound; and

if the page is not pinned or bound, destaging the page.

6. (Original) A method according to Claim 5, wherein the processing step includes the further step of, if said each page is not pinned or bound, copying data from said each page onto a new page, and then marking said each page as unavailable.

7. (Cancelled)

8. (Currently Amended) A method of deconfiguring a memory cache, said memory cache including a series of memory pages, the method comprising the step of:

identifying selected pages of the cache;

marking each of said selected pages as unavailable; and

after all of said selected pages are marked as unavailable, removing the selected pages from the cache;

_____wherein the memory pages are on a series of tracks in the cache, and the cache further includes a multitude of segment control blocks, and a multitude of directory control blocks, each segment control block being associated with one of the memory pages, and each directory control block being associated with one of said tracks; and wherein:

the selected pages are all on the same track; and

the identifying step includes the step of, for each of the selected pages, identifying in the directory control block associated with the page, the segment control block associated with the page.

9. (Cancelled)

10. (Currently Amended) A method of deconfiguring a memory cache, said memory cache including a series of memory pages, the method comprising the step of:

identifying selected pages of the cache;

marking each of said selected pages as unavailable; and

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after all of said selected pages are marked as unavailable, removing the selected pages from the cache;

wherein the step of marking each of the pages as unavailable includes the steps of, for each of the selected pages,

determining whether the page is modified or unmodified;

if the page is unmodified, marking the page as unavailable; and

if the page is modified, processing the page according to a defined routine, and then marking the page as unavailable; and

wherein the step of processing the page includes the steps of:

determining whether the page is pinned or bound; and

if the page is not pinned or bound, destaging the page.

11. (Original) A method according to Claim 10, wherein the processing step includes the further step of, if said each page is not pinned or bound, copying data from said each page onto a new page, and then marking said each page as unavailable.

12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) A storage controller for interfacing between a plurality of host systems and a direct access storage devices system, the storage controller comprising:

a first cluster including a first processor and a first cache;

a second cluster including a second processor and a second cache;

means for directing data from the host systems through first and second data paths in the storage controller to the direct access storage system, wherein the first processor and the first cache are associated with the first data path, and the second processor and the second cache are associated with the second data path;

means for entering, under a first set of defined conditions, into a failover mode, wherein data directed to the first data path are routed to the second data path; and

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means for deconfiguring the first cache, under a second set of defined conditions, without entering the failover mode;

wherein the first cache includes a series of memory pages; and

the means for deconfiguring includes:

i) means for identifying selected pages of the first cache,

ii) means for marking each of said selected pages as unavailable, and

iii) means for removing the selected pages from the first cache after all of said selected pages are marked as unavailable; and

wherein:

the memory pages are on a series of tracks in the first cache;

the first cache further includes a multitude of segment control blocks, each segment control block being associated with one of the memory pages, and a multitude of directory control bocks, each directory control block being associated with one of said tracks;

the selected pages are all on the same track; and

the identifying means includes means for identifying in the directory control block associated with each of the selected pages, the segment control block associated with said each page.

15. (Cancelled)

16. (Currently Amended) A storage controller for interfacing between a plurality of host systems and a direct access storage devices system, the storage controller comprising:

a first cluster including a first processor and a first cache;

a second cluster including a second processor and a second cache;

means for directing data from the host systems through first and second data paths in the storage controller to the direct access storage system, wherein the first processor and the first cache are associated with the first data path, and the second processor and the second cache are associated with the second data path;

means for entering, under a first set of defined conditions, into a failover mode, wherein data directed to the first data path are routed to the second data path; and

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means for deconfiguring the first cache, under a second set of defined conditions, without entering the failover mode;

wherein the first cache includes a series of memory pages; and

the means for deconfiguring includes:

i) means for identifying selected pages of the first cache,

ii) means for marking each of said selected pages as unavailable, and

iii) means for removing the selected pages from the first cache after all of said selected pages are marked as unavailable; and

wherein the marking includes:

means for determining for each of the selected pages, whether the page is modified or unmodified;

means for marking the page as unavailable if the page is unmodified; and

means for processing the page according to a defined routine if the page is modified, and then marking the page as unavailable; and

wherein the means for processing includes:

means for determining whether the page is pinned or bound; and

means for destaging the page if the page is not pinned or bound.

17. (Original) A storage controller according to Claim 16, wherein the means for processing further includes means for copying data from said each page onto a new page, if said each page is not pinned or bound, and then marking said each page as unavailable.

18. (Cancelled)

19. (Currently Amended) A system for deconfiguring a memory cache, said memory cache including a series of memory pages, the controller comprising:

means for identifying selected pages of the cache;

means for marking each of said selected pages as unavailable; and

means for removing the selected pages from the cache after all of said selected pages are marked as unavailable, and

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wherein the memory pages are on a series of tracks in the cache, and the cache further includes a multitude of segment control blocks, and a multitude of directory control blocks, each segment control block being associated with one of the memory pages, and each directory control block being associated with one of said tracks; and wherein:

the selected pages are all on the same track; and

the means for identifying includes means for identifying in the directory control block associated with each of the selected pages, the segment control block associated with the page.

20. (Original) A system according to Claim 19, wherein the marking means includes:

means for determining whether each of the selected pages is modified or unmodified;

means for marking the page as unavailable if the page is unmodified; and

means for processing the page according to a defined routine, if the page is modified, and then marking the page as unavailable.

21. (Original) A system according to Claim 20, wherein the means for processing includes:

means for determining whether the page is pinned or bound; and

means for destaging the page if the page is not pinned or bound.

22. (Original) A system according to Claim 21, wherein the means for processing step further includes means for copying data from said each page onto a new page, if said each page is not pinned or bound, and then marking said each page as unavailable.

23. (Cancelled)

24. (Cancelled)

25. (Currently Amended) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for operating a storage controller for interfacing between a plurality of host systems and a direct access storage devices system, the storage controller including a first cluster including a first

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processor and a first cache, and a second cluster including a second processor and a second cache, said method steps comprising:

directing data from the host systems through first and second data paths in the storage controller to the direct access storage system, wherein the first processor and the first cache are associated with the first data path, and the second processor and the second cache are associated with the second data path;

under a first set of defined conditions, entering into a failover mode, wherein data directed to the first data path are routed to the second data path; and

under a second set of defined conditions, deconfiguring the first cache without entering the failover mode;

wherein the first cache includes a series of memory pages, and the deconfiguring step includes the steps of:

identifying selected pages of the first cache;

marking each of said selected pages as unavailable; and

after all of said selected pages are marked as unavailable, removing the selected pages from the first cache; and

wherein the memory pages are on a series of tracks in the first cache, and the first cache further includes a multitude of segment control blocks, each segment control block being associated with one of the memory pages, and a multitude of directory control bocks, each directory control block being associated with one of said tracks, and wherein:

the selected pages are all on the same track; and

the identifying step includes the step of, for each of the selected pages, identifying in the directory control block associated with the page, the segment control block associated with the page.

26. (Cancelled)

27. (Currently Amended) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for operating a storage controller for interfacing between a plurality of host systems and a direct access storage devices system, the storage controller including a first cluster including a first

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processor and a first cache, and a second cluster including a second processor and a second cache, said method steps comprising:

directing data from the host systems through first and second data paths in the storage controller to the direct access storage system, wherein the first processor and the first cache are associated with the first data path, and the second processor and the second cache are associated with the second data path;

under a first set of defined conditions, entering into a failover mode, wherein data directed to the first data path are routed to the second data path; and

under a second set of defined conditions, deconfiguring the first cache without entering the failover mode;

wherein the first cache includes a series of memory pages, and the deconfiguring step includes the steps of:

identifying selected pages of the first cache;

marking each of said selected pages as unavailable; and

after all of said selected pages are marked as unavailable, removing the selected pages from the first cache;

wherein the step of marking each of the pages as unavailable includes the steps of, for each of the selected pages,

determining whether the page is modified or unmodified;

if the page is unmodified, marking the page as unavailable; and

if the page is modified, processing the page according to a defined routine, and then marking the page as unavailable; and

wherein the step of processing the page includes the steps of:

determining whether the page is pinned or bound; and

if the page is not pinned or bound, destaging the page.

28. (Original) A program storage device according to Claim 27, wherein the processing step includes the further step of, if said each page is not pinned or bound, copying data from said each page onto a new page, and then marking said each page as unavailable.

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